



Research Article

CLINICAL STUDY ON *CHURNA BASTI* ADMINISTERED IN MODIFIED *KALA BASTI* SCHEDULE IN *AMAVATA*

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ABSTRACT

Amavata is most common debilitating joint disorder which makes the life of patient almost crippled. *Amavata* in the modern parlance can be correlated with Rheumatoid Arthritis which is a highly prevalent disease in the present life scenario due to the changing dietetic habits, social structure, environmental and mental stress. Ayurveda has a lot to offer in this regard. The *Chikitsa* explained for *Amavata* includes *Shodhana* as well as *Shamana* which includes *Langhana*, *Deepana*, *Swedana*, *Virechana*, *Snehapana*, *Basti* and *Upanaha*. Therefore, the study was planned to evaluate the efficacy of *Churnabasti* in modified *Kalabasti* schedule in the management of *Amavata*. *Churna Basti yoga* explained by *Acharya Chakrapani* comprises of drugs possessing *Ushna* & *Teekshnagunas*, *Deepana-Pachana*, *Vata Kaphahara* and *Shula-Shothahara* properties which may help in attaining *Agnideepti*, *Laghutva*, *Nirama Lakshana* and *Shoolahara* effect. Combination of *Vaishwanara choorna*, *Rasna Saptaka Kashaya* and *Dhanyamla* administered in *Amavata* is yielding beneficial effects as the ingredients possess the properties opposite to that of *Amavata* and therefore acts positively on the disease. The present study was planned based on this concept and statistically highly significant effects ($P > 0.0001$) were observed in the various assessment parameters of *Amavata* such as *Sandhishoola*, *Sandhishotha*, *Sandhistabdhata* *Sandhisparsha Asahyata* etc. In overall effect of therapy maximum number of patients (40.12%) got marked improvement. Therefore, *Churna Basti* comprising of drugs possessing properties opposite to *Ama* can be considered as a good remedy in the management of *Amavata*.

KEYWORDS: *Amavata*, *Churna Basti*, Rheumatoid Arthritis.

INTRODUCTION

Basti is considered to have multifaceted effect as it cures the diseases of *Shakha*, *Koshta*, *Marmas* and *Sarva Avayavas*¹. *Acharya Chakrapani* mentions *Churna Basti*² comprising of *Saindhava Lavana*, *Sneha*, *Churnas* (*Rasna*, *Vacha*, *Bilwa*, *Shatapushpa*, *Ela*, *Putika*, *Madanaphala*, *Pippali*, *Devadaru*, *Kushta*), *Ushnajala* and *Amladravya* as the key ingredients. These drugs possess *Ushna* & *Teekshnagunas*, *Deepana-Pachana*, *Vata Kaphahara* and *Shula-Shothahara* properties which may help in attaining *Agni deepti*, *Laghutva*, *Nirama Lakshana* and *Shoolahara* effect.

Based on this concept, the ingredients are modified and is practiced in the management of *Santharpanotha vikaras* like *Amavata*. A combination of *Vaishwanara choorna*, *Rasna Saptaka Kashaya* and *Dhanyamla* administered in *Amavata* is yielding beneficial effects as the ingredients possess the properties opposite to that of *Amavata* and therefore acts positively on the disease.

*Amavata*³ is the disease affecting *Asthi* and *Sandhis* wherein *Ama* and *Vata* are the initiating factors in the pathogenesis. Moreover, the chief pathogenic factors, being contradictory in nature poses difficulty in planning the line of treatment. Rheumatoid Arthritis can be correlated to *Amavata* on the basis of etiology, pathology, therapeutic sign and symptoms. The figures of prevalence vary substantially ranging from 0.3% to 2.1% of the

population, with peak incidence in the fourth decade of life⁴.

Therefore, due to wide spectrum of disease, much prevalence in the society and lack of effective medicaments a pilot study with *Churna Basti* was carried out to ascertain the effect on *Amavata* patients and has shown encouraging results on attaining *Agni deepti*, *Laghutva*, *Nirama Lakshana* and *Shoolahara*.

AIMS AND OBJECTIVES

To evaluate the efficacy of *Churnabasti* in modified *Kalabasti* schedule in the management of *Amavata*

MATERIALS AND METHODS

Source of data

10 patients of *Amavata* was taken for study from Shri Dharmasthala Manjunatheshwara College of Ayurveda And Hospital, Hassan, Karnataka.

Methods of Collection of Data

Diagnostic criteria

- *Samanya Lakshana's* of *Amavata* are *Angamarda*, *Aruchi*, *Trusna*, *Alasya*, *Gaurava*, *Jwara*, *Sandhishotha*, *Sandhiruja*, *Garastambhata*, *Sparshasahyata* and *Nidraviparyaya*.
- 1987 American Rheumatism Association Revised criteria

- Morning stiffness in and around joints for at least 1 hour
- Soft tissue joint swelling observed by physician at least 3/14 joint groups
- (Right or Left : MCP-Meta-carpophalangeal joint, PIP-Proximal interphalangeal joint, wrist, elbow, knee, ankle, MTP-Meta-tarso phalangeal joints)
- Soft tissue joint swelling in a hand joint (MCP, PIP or wrist)
- Symmetrical swelling of joint area
- Rheumatoid nodule
- Positive Rheumatoid factor
- Radiograph changes on wrist/hands:

For the diagnosis of the patient must have at least four of the above symptoms present for atleast 6weeks.

Inclusion Criteria

- Patients will be selected irrespective of their gender, caste or creed.
- Chronicity less than 5 years.
- Patients between the ages of 18 to 60 years
- The patients fit for *Basti Karma*.
- With systemic disorders
- Hypertension < 150/90 mmHg
- Controlled Type 2 Diabetes mellitus -FBS : <110 mg/dl and PPBS : <150 mg/dl

Exclusion Criteria

Rheumatoid Arthritis associated with

- Pregnancy

- Systemic Lupus Erythematous
- Active Tuberculosis or other severe infections
- Moderate to severe cardiac insufficiency

Investigations

Blood

- Haemoglobin %
- Total Count
- Differential Count
- Erythrocyte Sedimentation Rate
- Fasting Blood Sugar
- Post Prandial Blood Sugar
- R.A. Factor

Research Design

It was an open labeled, single arm interventional clinical study with pre-test and post-test design wherein 10 patients suffering from *Amavata* was selected. The parameters of signs and symptoms of was analyzed statistically.

Drug

Ingredients of *Churna Basti*

Ingredients	In Pala	in ml/gms
<i>Vaishwanara churna</i>	1 Pala	50 grams
<i>Rasnasaptaka kashaya</i>	4 Pala	200 milliliters
<i>Dhanyamla</i>	2 Pala	100 milliliters
Total	7 Pala	350 milliliters

Ingredients of *Vaishwanara Churna*

Sl.No	Sanskrit Name	Botanical Name	Part Used	Proportion
1	<i>Saindava Lavana</i>	Sodium chloride		2 Parts
2	<i>Yavani</i>	<i>Trachyspermum ammi</i>	Fruit	2 Parts
3	<i>Ajamoda</i>	<i>Apium graveolans</i>	Fruit	3 Parts
4	<i>Nagara</i>	<i>Zingiber officinalis</i>	Rhizome	5 Parts
5	<i>Haritaki</i>	<i>Terminalia chebula</i>	Fruit Pulp	12 Parts

Method of Preparation

All the ingredients are taken in above mentioned proportion and fine powder is prepared.

Ingredients of *Rasna Saptaka Kashaya*

S.No	Sanskrit Name	Botanical Name	Part Used	Proportion
1	<i>Rasna</i>	<i>Alpinia galangal</i>	Root	1 Part
2	<i>Amrita</i>	<i>Tinospora cordifolia</i>	Stem	1 Part
3	<i>Aragwadha</i>	<i>Cassia fistula</i>	Fruit Pulp	1 Part
4	<i>Devadaru</i>	<i>Cedrus deodara</i>	Heart Wood	1 Part
5	<i>Trikantaka</i>	<i>Tribulus terrestris</i>	Fruit	1 Part
6	<i>Eanda</i>	<i>Ricinus communis</i>	Root	1 Part
7	<i>Punarnava</i>	<i>Boerhavia diffusa</i>	Root	1 Part

Method of Preparation

All the ingredients are procured in the form of coarse powder and *Kashaya* is prepared by adding 200grams of *Kwatha churna* to 800ml of water and reduced to 1/4th quantity.

Treatment Plan

All subjects were administered with 350ml of *Churna Basti* and *Anuvasana Basti* with 80ml of *Brihat Saindavadi Taila* in Modified *Kala Basti* Schedule.

Schedule of The Basti

	D1	D2	D3	D4	D5	D6	D7	D8	D9
Morning		N	N	N	N	N	N	A	A
Evening	A	A	A	A	A	A	A	A	

A- Anuvasana Basti N- Niruha Basti

Duration of the Study

- 1-9th day: Basti in Modified Kala Basti schedule
- Pariharakala of 30 days.
- Follow up after 30 days.

Assessment Criteria

Following parameters has been taken for assessment for this clinical study.

Subjective parameters

Lakshanas of Amavata will be assessed after self scoring i.e., Angamarda, Aruch, Alasya, Gaurava, Sandhishotha, Sandhiruja, Gatrastambhata, Sparshasahyata and Nidraviparyaya.

Objective Parameters

- 1) Circumference of limbs measured in cms.
- 2) Range of movement measured with the help of Goniometer.
- 3) Foot pressure measured with the help of weighing machine.
- 4) Hand grip test.

Sandhishoola (Pain in joints) Score

No pain	: 00
Mild pain of bearable nature, comes occasionally	: 01
Moderate pain, but no difficulty in joint movement	: 02
Slight difficulty in joint movements due to pain, Requires medication and May remain throughout the day more difficulty in moving the joints and pain is severe, Disturbing sleep and requires strong analgesics	: 03
	: 04

Sandhishotha (Swelling of the joints)

No swelling	: 00
Slight swelling	: 01
Moderate swelling	: 02
Severe swelling	: 03

Sandhistabdhata (Stiffness of the joints)

No stiffness or stiffness lasting for 5 min	: 00
Stiffness lasting for 5 min to 2 hrs.	: 01
Stiffness lasting for 2 to 8 hours	: 02
Stiffness lasting for more than 8 hours	: 03

Sandhisparsha Asahyata (Tenderness of joints)

No tenderness	: 00
Subjective experience of tenderness	: 01
Winching of face on pressure	: 02
Winching of face with withdrawal of affected parts on Pressure	: 03
Resists to touch	: 04

Agnidourbalya

No Agnimandya	: 00
Occasional Agnimandya 1 to 2 times / week	: 01
Agnimandya 3 to 4 times / week	: 02
Agnimandya 4 to 6 times / week	: 03
Continuous Agnimandya	: 04

Praseka

No Praseka	: 00
Excessive salivation during meals only	: 01
Excessive salivation during meals and occasionally after meals	: 02
Excessive salivation throughout day	: 03
Excessive salivation throughout day with dribbling during nights	: 04

Aruchi

Normal desire for food	: 00
Eating timely without much desire	: 01
Desire for food, little late, than normal time	: 02
Desire for food only after long intervals	: 03
No desire at all	: 04

8. Gourava

No feeling of heaviness	: 00
Occasional heaviness in body but does usual work	: 01
Continuous heaviness in body but does usual work	: 02
Continuous heaviness which hampers usual work	: 03
Unable to do any work due to heaviness	: 04

Alasya

Instant start of work	: 00
Less willing at start of work	: 01
Less willing throughout whole work	: 02
Less willing and does not complete work	: 03
No willingness at all	: 04

Nidraviparyaya

Normal sleep	: 00
Unsound sleep during night with short naps during day	: 01
1 to 2 hr. reductions in night sleep with mild increase in day sleep	: 02
3 to 5 hr. reductions in night sleep with gross increase in day sleep	: 03
Wakes during nights and sleeps during day	: 04

Overall assessment of the therapy

Complete remission : 100% relief

Marked improvement : $\geq 75\%$ reliefModerate improvement : $\geq 50\%$ to $<75\%$ reliefMild improvement : $\geq 25\%$ to $<50\%$ reliefUnchanged : $<25\%$ relief**OBSERVATION AND RESULTS**

Effect of therapy on chief complaints such as *Sandhishoola*, *Sandhishotha*, *Sandhistabdhata* and *Sandhisparsha Asahyata* is found to be statistically highly significant ($P>0.0001$). Also statistically highly significant

($P>0.0001$) results were found on general symptoms such as *Angamarda*, *Aruchi*, *Gaurava* etc [Table 1] and Statistically significant results on functional capacity parameters [Tables 2].

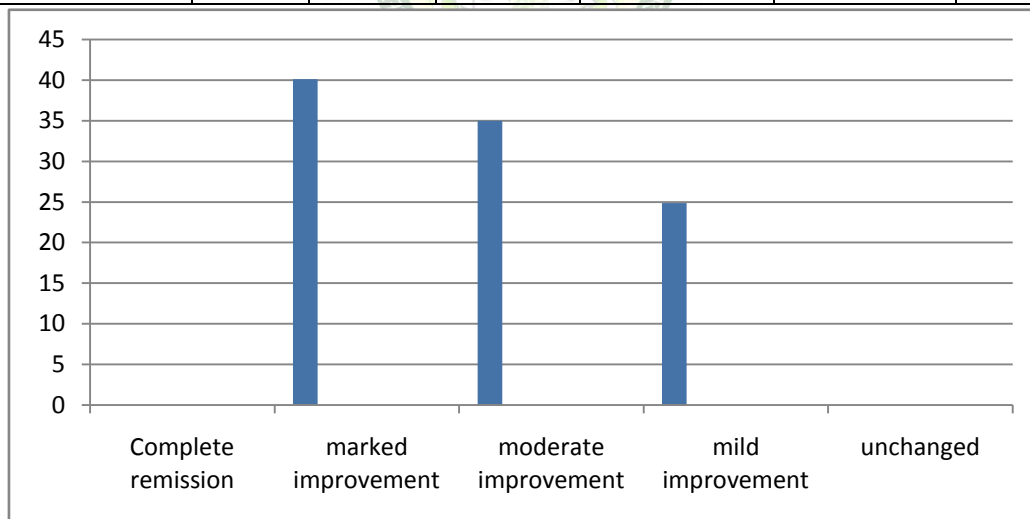
The retention time of *Choorna Basti* up to 5- 9mins was observed in maximum number of patients (80%) and retention time of *Anuvasana Basti* -3 to 6 hrs was observed in 83.66% patients. In overall effect of therapy maximum number of patients (40.12%) got marked improvement [Chart 1].

Table 1: Statistical data of symptoms wise improvement

Parameter	Mean value			percentage	
	BT	AT	FU	AT	FU
<i>Sandhishoola</i>	1.20	2.00	2.80	66.67%	133.33%
<i>Sandhishotha</i>	1.56	2.84	3.04	82.05%	94.87%
<i>Sandhistabdhata</i>	1.32	2.36	3.00	78.78%	127.27%
<i>Sandhisparsha Asahyata</i>	1.52	2.72	3.08	78.94%	102.63%
<i>Angamardha</i>	1.48	2.68	3.04	81.08%	105.40%
<i>Aruchi</i>	1.28	2.04	2.96	59.37%	131.25%
<i>Gaurava</i>	0.84	1.60	1.72	90.47%	109.52%

Table 2: Statistically significant results on functional capacity parameters

Parameter	Mean value			percentage		P value
	BT	AT	FU	AT	FU	
Foot pressure	1.48	2.04	2.84	37.83%	91.89%	=0.0018
Grip strength	1.32	1.92	2.92	45.45%	121.21%	=0.0016
Walking time	2.68	2.96	3.04	104.47%	134.32%	=0.0159
Range of Movements	0.48	0.80	1.24	66.66%	158.33%	=0.0042

**Chart 1: overall effect of therapy****DISCUSSION**

Majority of patients belonged to the age group of 41-50 yrs (46.3%) followed by 24% of subjects belonging to age group more than 55 years. Rheumatoid arthritis can begin at any age but has its peak between ages 30 to 55 Years. 87.1% female were registered in study against 12.9% of male patients. The occurrence of RA is relatively common in women population. The female: male is about 3:1. Majority of the patients were having *Mandagni* (91.02%). *Mandagni* is the root cause of all the disease,

particularly of *Amavata*. Maximum 41.9 % (13) patients in the study belonged to *Vata Pitta Prakriti*, whereas minimum patients 25.8% (8) were reported in *Vata Kapha* group. *Hemadri* comments that *Vata-Pitta Prakriti* is *Hinatama* and the individuals possessing this *Prakriti* are more prone to disease. In this study, in majority of patients pain and stiffness increased during winter and cold climate. Cold climate and decrease in barometric pressure

increases the arthritis pain. High humidity is unfavorable for arthritis patients.

*Vaishwanara churna*⁷ consists of *Saindava*, *Yavani* (*Trachyspermum ammi*), *Ajamoda* (*Trachyspermum roxburghianum*), *Nagara* (*Zingiber officinalis*) and *Haritaki* (*Terminalia chebula*). *Rasna Saptaka kashaya*⁸ comprises of *Rasna* (*Alpinia galanga*), *Guduchi* (*Tinospora cordifolia*), *Aragwadha* (*Cassia fistula*), *Devadaru* (*Cedrus deodara*), *Gokshura* (*Tribulus terrestris*), *Erandamoola* (Roots of *Ricinus communis*), *Punarnava* (*Boerhavia diffusa*)⁹. Both these combinations have *Vata-kaphahara*, *Deepaniya*, *Sothahara* and *Amahara* properties. In the present study, *Dhanyamla* is used as *Amladravya* and for *Avapa* which is having *Amahara* and *vataharaproperty*¹⁰. *Brihat Saindavadi Taila* is used for *Anuvasana Basti*. The base of this *Taila* is *Eranda Taila* and is mainly *Vata Kapha Samaka*. The *Eranda Taila* is medicated by different drugs which are also of *Usna Virya*, *Agnidipana* and *Vatakapha Samaka*. Thus, for *Anuvasanabasti* in the *Amavata* patients, the *Eranda Taila* seems to be best and so this preparation of *Eranda Taila* i.e. *Brihatsaindhavadi Taila* was selected.

The contents of *Brihat Saindavadi Taila* are *Saindava Lavana*, *Gaja Pippali*, *Rasna* (*Pluchea lanceolata*), *Shatapushpa* (*Anethum sowa*), *Yavani* (*Carum copticum*), *Sarja Kshara*, *Marica* (*Piper nigrum*), *Kusta* (*Saussurea lappa*), *Shunti*, *Souvarchala Lavana*, *Vida Lavana*, *Vacha* (*Acorus calamus*), *Ajamoda* (*Apium graveolens*), *Madhuka* (*Madhuka longifolia*), *Jeeraka* (*Cuminum cyminum*), *Pushkara Moola* (*Inula racemosa*), *Kana* (*Piper longum*)¹¹.

Basti administered with *Ushna* and *Teeksna* properties may aggravate the *Vata*. To pacify the aggravation of *Vata*, *Anuvasana basti*¹² with *Brihat Saindavadi taila* is given in modified *Kala Basti* Schedule as *Amavata* is a *Gambheera dhatugata vyadhi*. According to authorities, after giving *Niruha Basti* in the morning, on the same day *Anuvasana Basti* can be given¹³. If this schedule is followed then *Yoga Basti* can be completed in 5 days, *Kala Basti* 9 days and *Karma Basti* in 18 days. In this way duration of the *Basti* schedules can be reduced significantly.

CONCLUSION

It can be concluded that *Amavata* in the modern parlance can be correlated with Rheumatoid Arthritis which is a highly prevalent disease in the present life scenario. Therefore, *Churna Basti* comprising of drugs possessing properties opposite to *Ama* can be considered as a good remedy in the management of the disease.

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Cite this article as:

Rajan Amritha, M Kumar Ashvini, B A Lohith. Clinical Study on Churna Basti Administered in Modified Kala Basti Schedule in Amavata. International Journal of Ayurveda and Pharma Research. 2016;4(8):60-64.

Source of support: Nil, Conflict of interest: None Declared

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